NOVEMBER/DECEMBER 2025

23PCS33 — NETWORK SECURITY AND CRYPTOGRAPHY

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define the term— Cryptography.
2. What is Authentication?
3. Define the term - Public key.
4. What is RSA algorithm?
5. What is S/MIME?
6. What is X.509?
7. Who are Intruders?
8. Define the term — Firewall.
9. What is Network forensic?
10. What is stegnography?

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SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Describe about the Security attacks.

Or

(b) Discuss on AES algorithm.

12. (a) Explain the Diffie-Hellman Key exchange procedure.

Or

(b) Describe the fundamentals of Digital signature.

13. (a) Discuss on the basics of IP Security.

Or

(b) Explain the concept of Kerberos.

14. (a) Describe the fundamentals of Secure Socket Layer.

Or

(b) Discuss on Virus countermeasures and Distributed DoS attacks.

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15. (a) Write short notes on Security audit.

Or

(b) Explain briefly about Quantum Cryptography.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Explain the working of Stream cipher and Block cipher algorithms in detail.

17. Discuss on Message authentication and Hash functions.

18. Describe about Pretty Good Privacy in Email security.

19. Explain the method of Intrusion detection.

20. Write the procedure to implement RSA algorithm with an example.

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